

### REMARKS

Reconsideration of this application is respectfully requested in view of the following remarks.

Claims 1-202 were pending in this Application. In the Office Action mailed February 8, 2006:

- Claims 3, 4, 61, 69-75, 146-147 and 150 were objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. The Examiner similarly objected to claim 63, but it is believed that claim 62 (not claim 63) was intended by the Examiner.
- Claims 1, 2, 5-60, 63-68, 117-145, 148, 149, 151-183 and 202 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Pub. No. 2002/0021434 to Nomura et al. ("Nomura").
- Claims 76-116 and 184-201 were withdrawn from further consideration.
- Applicants were advised that claims 117-143 would be objected to under 37 C.F.R. § 1.75 as being substantial duplicates of claims 1-12 and 17-31, should the latter claims be found allowable. Similarly, according to the Examiner, claims 145-170 would be objected to under 37 C.F.R. § 1.75 if claims 32-43 and 48-62 should be found allowable, and claims 171-183 would be objected to if claims 63-75 should be found allowable.

The Examiner is thanked for indicating allowable subject matter.

Inasmuch as a rejection under 35 U.S.C. § 102(a) was issued for claim 202, in spite of its apparent withdrawal in the Office Action Summary page, Applicants will treat claim 202 as not having been withdrawn from consideration. It also appears that the Examiner intended to object to claim 62, not claim 63. Claims 63 was rejected. No rejection of claim 62 was entered. Thus, as indicated above, Applicants will treat claim 62 as having been objected to for purposes of this response. Confirmation of what was intended by the Examiner is respectfully requested.

Rejection of Claims, 1, 2, 5-60, 63-68, 117-145, 148, 149, 151-183 and 202 under 35 U.S.C. § 102(a)

For the reasons discussed below, Applicants respectfully traverse the rejection of independent claims 1, 32, 63, 117, 144, 171, and 202.

In the Office Action, the Examiner appears to assert that all the claimed features of claims 1, 2, 5-60, 63-68, 117-145, 148, 149, 151-183 and 202 are disclosed by paragraphs [0075]-[0108] of Nomura. In those paragraphs, Nomura discloses an “evaluation mask” (paragraph [0078]), “test marks” (paragraphs [0092]-[0095]), and a “test pattern for a test mark” (paragraph [0105]). In paragraph [0011]–[0013], Nomura defines an evaluation mask as having “at least one diffraction grating” that produces a pattern “projected onto a substrate.” In paragraph [0024], Nomura discloses a method for measuring defocus of an image of a test mark by “preparing an evaluation mask as the focus test mark.” The image of the test mark is “projected onto a substrate by way of a projection optical system.” Clearly, the “evaluation mask” and “test mark” discussed in Nomura, paragraphs [0075]-[0108], and relied on by the Examiner, relate to patterns that are *formed in masks and projected onto* substrates. In sum, Nomura is directed towards an evaluation mask and a focus measuring method, wherein *a mask*

*image projected onto a substrate* is used to evaluate properties of a projection apparatus, e.g., a focus point (paragraphs [0011]-[0031]).

In contrast, Claim 1 of this invention recites an alignment system that is configured to determine a position of an alignment *mark on a workpiece*. As disclosed in the specification (see paragraph [0044]), the term workpiece can refer to a substrate. The term “alignment mark on” a substrate, as recited in claim 1, clearly refers to an alignment mark of the substrate itself, as illustrated in Figures 15A-D and discussed in paragraph [00127]. Thus, claim 1 recites a system configured to determine the position of an alignment mark of (or *within*) a substrate, as opposed to Nomura, which discloses systems and methods of projecting images of a mask *onto a substrate*. Moreover, the feature of determining a position of an alignment mark on a workpiece is recited in independent claims 32, 63, 117, 144, 171 and 202. Thus, Nomura fails to teach at least this feature that is common to all the pending independent claims of this invention.

Accordingly, Applicants respectfully request that the rejection of independent claims 1, 32, 63, 117, 144, 171 and 202 under 35 U.S.C. § 102(a) as being anticipated by Nomura be removed.

Additionally, claims 1, 32, 63 and 202 recite an alignment system (or method) that can determine an alignment mark position by processing a combination of signals from a first and second detector, wherein the combination takes into account a “manufacturing process” (or “processing”) experienced by the workpiece (substrate). Figures 15A-D and 16-17 of this application, as well as the discussion thereto, disclose examples of determining an alignment mark position by taking into account the processing experienced by a substrate. This feature, which is recited in claims 1, 32, 63 and 202, is nowhere disclosed in Nomura. For this additional

reason, Nomura does not anticipate claims 1, 32, 63 and 202. Thus, independent claims 1, 32, 63, 117, 144, 171, and 202 should all be in condition for allowance.

Warning Concerning Conditional Objection to Claims 117-183 under 37 C.F.R. § 1.75

As noted above, claims 1, 32 and 63 recite an alignment system (or method) that can determine an alignment mark position by processing a combination of signals from a first and second detector, wherein the combination takes into account a “manufacturing process” (or “processing”) experienced by the workpiece (substrate). This feature is not recited in corresponding claims 117, 144, and 171, rendering them clearly distinct from respective claims 1, 32, and 63. Similarly, all the dependent claims that depend from claims 1, 32, and 63 are distinct from their counterparts that depend from respective claims 117, 144, and 171 by virtue of the dependency. *See* 35 U.S.C. § 112, ¶ 4. Accordingly, Applicants submit that it would be improper to object to any of claims 117-183 under 37 C.F.R. § 1.75, in the event that any corresponding claims among claims 1-75 are deemed allowable.

Objection to claims

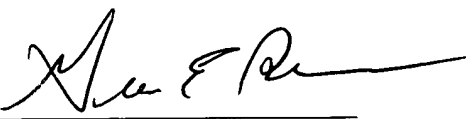
Claims 3, 4, 61, [62], 69-75, 146-147, and 150 were objected to as being dependent on a rejected base claim. Inasmuch as base claims 1, 32, 63, and 144 should be in allowable condition, as noted above, claims 3, 4, 61-62, 69-75, 146-147 and 150 should also be allowable without revision.

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In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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